AMENDMENTS TO THE CLAIMS

The listing of the claims will replace all prior versions, and listings, of claims in the application.

LISTING OF THE CLAIMS

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Claim 1 (currently amended): An apparatus for controlling the load on articular cartilage forming part of an articular joint connecting a first bone to a second bone of a human or animal joint to treat arthritic conditions affecting the joint, comprising:

(a) a first fixation assembly for attachment to the first bone;

(b) a second fixation assembly for attachment to the second bone; and

(c) a link assembly coupled to the first fixation assembly by a first pivot and coupled to the second fixation assembly by a second pivot and configured to span anatomy affected by arthritic conditions but lacking fractures, the first and second fixation assembly thereby each being angularly displaceable relative to the link assembly;

said apparatus provides reduction of pressure on at least a portion of the joint without substantially resisting an angular displacement associated with relatively full mobility of the first and second bones of the joint to thereby treat arthritic conditions affecting the joint.

Claim 2 (previously presented): The apparatus according to claim 1 in which the first fixation assembly includes at least one pin for engaging with the first bone.

Claim 3 (previously presented): The apparatus according to claim 2 in which the first fixation assembly includes a clamp for mounting a plurality of pins each for engaging with the first bone, said plurality of pins being spaced along the length of the first fixation assembly.

Claim 4 (original): The apparatus of claim 1 in which the first fixation assembly includes engagement means for engaging at least one bone pin, the engagement means being rotatable about a longitudinal axis of the first fixation assembly.

Claim 5 (original): The apparatus of claim 1 in which the first fixation assembly includes engagement means for engaging at least one bone pin, the engagement means being rotatable about a transverse axis of the first fixation assembly.

Claim 6 (original): The apparatus of claim 2 in which the first fixation assembly includes engagement means for engaging at least one bone pin, the engagement means being independently rotatable about a longitudinal axis and a transverse axis of the first fixation assembly.

Claim 7 (previously presented): The apparatus according to one of claims 1-6 in which the first fixation assembly is coupled to the link assembly by way of a first pivot in a manner selected from the group consisting of those having one and two degrees of rotation freedom.

Claim 8 (canceled)

Claim 9 (previously presented): The apparatus according to claim 1 in which the link assembly includes a fixed separation member for maintaining said first and second pivots at a fixed distance of separation.

Claim 10 (withdrawn): The apparatus according to claim 1 in which the link assembly includes a variable separation member for permitting the first and second pivots to vary in their distance of separation within predetermined limits.

Claim 11 (withdrawn): The apparatus according to claim 10 in which the variable separation member includes bias means for biasing the first and second pivots towards a maximum limit of separation distance.

Claim 12 (withdrawn): The apparatus according to claim 10 in which the variable separation member includes bias means for biasing the first and second pivots towards a minimum limit of separation distance.

Claim 13 (withdrawn): The apparatus according to claim 10 in which the variable separation member includes bias means for biasing the first and second pivots towards an intermediate distance of separation between said predetermined limits.

Claim 14 (previously presented): The apparatus according to claim 1 further including means for limiting the angular displacement of the first fixation assembly relative to the link assembly and/or means for limiting the angular displacement of the second fixation assembly relative to the link assembly.

Claim 15 (previously presented): The apparatus according to claim 1 further including means for varying separation of the first fixation assembly and the second fixation assembly as a function of the angular displacement of either fixation assembly relative to the link assembly.

Claim 16 (previously presented): The apparatus according to claim 1 further including a drive member coupled to the first fixation assembly and to the second fixation assembly for controllably varying the angular displacement of the first and second fixation assemblies relative to one another.

Claim 17 (withdrawn): The apparatus according to claim 10 in which the variable separation member further includes drive means for controllably varying the distance of separation of the first and second pivots.

Claim 18 (previously presented): The apparatus according to claim 1 further including a sensor adapted to monitor the load applied across the link assembly.

Claim 19 (original): The apparatus according to claim 18 in which the sensor is adapted to monitor any one of the tensile load, compression load, shear forces or bending forces applied across the link assembly.

Claim 20 (original): The apparatus according to claim 19 in which the sensor comprises a strain gauge.

Claim 21 (original): The apparatus according to any one of claims 1 to 6 comprising a pair of link assemblies each pivotally anchored to both the first and second fixation assemblies and laterally displaced from one another.

Claim 22 (withdrawn): The apparatus according to claim 21 in which the pair of link assemblies comprise a first link member and a second link member that are laterally and angularly displaced from one another.

Claim 23 (withdrawn): The apparatus to claim 22 in which the first link member and the second link members are disposed in a crosswise formation.

Claim 24 (original): The apparatus according to claim 1 further including a second corresponding apparatus for coupling thereto by a plurality of bone pins.

Claim 25-34 (canceled)